

Investigating Whether Contacting Absent Students Increases Course Success

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Abstract: Studies suggest that student attendance in college classes increases course success. Yet, surprisingly few studies have examined strategies to increase student attendance. The goal of the current study is to consider whether contacting consistently absent students increases success in an undergraduate research methods course. Results of this classroom action study suggest that students view contacts positively and a majority stated that they were more likely to attend class following the contact. In regression analyses, however, net of other factors such as prior grade point average, contacts did not predict final grade percentage and D/F rate comparisons to a prior semester without contacts showed modest but not statistically significant improvements. Implications are discussed.

Keywords: Attendance Patterns; Instructor Contact; Course Success

It is commonly assumed that higher student attendance increases the likelihood that students will succeed in the course, and some research supports this notion. One common strategy for increasing attendance is a mandatory attendance policy and a few studies suggest that such policies increase attendance. Another strategy is for the instructor to systematically contact absent students in an effort to bolster students' feelings of connectedness and increase motivation to attend class. The goal of the current classroom action study is to examine whether contacting consistently absent students increases success in an undergraduate research methods course.² Results suggest mixed support for the effectiveness of contacting absent students. Survey results suggest that students generally view the instructor contacts positively and a majority of contacted students stated that the contact made them more likely to come to class. Regression analyses, however, did not suggest any independent impact of the contacts on final course grade, net of other factors such as prior grade point average (GPA). A comparison of D/F rates with a prior section without systematic contacts showed small but not statistically significant improvements in course success compared to a prior semester. The implications of the current study for future research and classroom attendance policies are discussed.

I. A Classroom Challenge: Student Attendance.

Conventional wisdom among college instructors and administrators is that student attendance and course success are related, and some research supports this notion. For example, in a study of 300 undergraduates in a large Midwestern university general education biology course, Gump (2005) found that student absences were negatively related to course grades.

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² This study was undertaken as part of a statewide initiative called the *Indiana Project on Academic Success* to boost student retention rates. I focus in this study on course success as a means to support *college* retention.

Similarly, Brown, Graham, Money, and Rakoczy (1999) found that higher numbers of absences were associated with lower grades in a study of nine nursing courses. Such findings have been reported across a variety of undergraduate curriculum areas such as sociology (e.g. Day, 1994), psychology (Levine, 1992), business law (e.g. Davenport, 1990), and physiology (Hammen and Kelland, 1994), but are not unequivocal (see for example St. Clair, 1999 who views the evidence as mixed).

If increasing student attendance boosts course success, then it seems reasonable to examine strategies to increase attendance rates. One strategy to increase student attendance is a mandatory attendance policy. Although not all agree that mandatory attendance policies are a good idea (see Hyde and Flournoy, 1986; St.Clair, 1999), some evidence suggests that such policies increase student attendance. For example, Levine (1992) reports that student attendance was greater in courses where attendance was explicitly required compared to those where it was not. In paraphrasing the old “carrot and stick” approach to generating desirable behaviors (or deterring undesirable ones), one might think of a mandatory attendance policy as “the stick” because it typically involves (explicitly or implicitly) penalizing students for lack of attendance. One might also focus on “carrot” strategies to increase attendance such as extra credit points. Yet, mandatory attendance or extra credit policies are blanket policies that apply to the entire class.

A more targeted approach that zeroes in on specific students might be to contact students exhibiting frequent absenteeism. To date, only one study has considered whether contacting absent students can increase retention and success. Richie and Hargrove (2005) found that telephone contacts of absent students in freshman English classes were associated with fewer absences, higher course grades, and ultimately higher college retention in the following year.

A number of studies suggest that student motivation enhances course success (see Pintrich, 1994 for a discussion). Although a number of factors influence student motivation, one factor may be the degree to which the student perceives that the instructor is concerned about them. I argue that contacting absent students could increase student motivation to attend class by making the student cognizant of the fact that the instructor cares enough about the student as an individual to reach out to them in cases of consistent absence. This is especially likely for a subset of the student population in many undergraduate classes, who exhibit spotty attendance and appear to have minimal motivation to attend class or connectedness to the class. Typically these students miss the first day of class, attend infrequently, or never attend class prior to the first examination. This group often does poorly on the first exam and later withdraws or failed the course, usually due to even less consistent attendance after the first exam. I refer to these students as “half in/half outs” because they seem to be somewhat interested in taking part in the course and/or college more generally but also have their feet halfway out the door for a variety of reasons (often the pressures of balancing work, family and school demands). Frequently poor initial examination scores push them the rest of the way out through failure or withdrawal.

Over the course of several semesters, anecdotal evidence from students suggested that contacting consistently absent students seemed to boost course attendance. For example, one student, whom I contacted after several absences, expressed to me that I was the first professor that had ever noticed her absence from class and cared enough to follow up. Other students expressed similar positive responses to my informal attempts to contact them. This anecdotal evidence led me to hypothesize that a formal policy of contacting absent students would boost attendance and course success. Thus, the research question in the current study is: Does contacting consistently absent students increase student success?

II. Data and Methods.

Although the ideal research design for determining cause and effect incorporates random assignment to treatment and control groups, such a design was impossible in the current study because of the nature of the courses I teach within the curriculum. Specifically, only one section is typically offered per semester and students can take courses in any sequence. It was also not possible to consider longitudinal designs because students are only in the course for a single semester. Randomization within the class was also not possible because any effects of increased attention to attendance could not be assumed to be restricted to the experimental portion of the class. Therefore, I chose a two-pronged approach to examining the research question. First, I chose a quasi-experimental design that compared the overall grade information in the treatment class to a comparison class from a prior semester's section of the same course (both sections were 200-level undergraduate research methods courses). In both semesters student attendance was explicitly mandatory and tracked through attendance sheets. In addition, to provide a positive incentive for students to attend class, in both semesters, I awarded 10 points of extra credit for students who missed 0 or 1 class periods, and 5 points of extra credit to students who missed 2 or 3 class periods. Thus, the only variation regarding attendance from the previous semester was the instructor systematically contacting absent students. For students that agreed to participate in the study (47 of the 56 who began the semester), I attempted to contact them via email, and positively reinforce the desirability of class attendance if they were absent for two or more consecutive days, or exhibited a pattern of inconsistent attendance such as missing every other class or two or three out of five. If participating students continued to be absent or did not respond to email, phone contacts were attempted. Records of all contacts and attempts to contact students were kept.

The second prong of the evaluation process was to examine students' subjective views of the contacts. At the end of the semester a confidential survey was distributed to all study participants (see Appendix 1). Students were informed that their participation was voluntary and would not affect their course grade. The survey examined reasons for absences, and for those students that were contacted via email or phone, how they viewed instructor contacts, including whether the contacts influenced future attendance. The survey also asked general questions regarding student views of the relationship between course attendance and course success. Survey responses were linked to student attendance records and course grades.

III. Results.

Of the 56 students enrolled at the beginning of the semester, 43 students received letter grades, 9 withdrew, and 4 received failing grades for non-attendance. In all, 19 contacts for absences were attempted or completed regarding 15 students. A few did not respond via email and therefore required follow-up phone contacts. Three students received more than one contact by the instructor for consistent absences and two contacted students ultimately withdrew from the course and another failed because they stopped attending.

Of the 43 students that remained in the course when the survey was distributed, 33 completed surveys, representing a 77% completion rate.³ Four students failed to report their names and five students failed to report their prior GPA. For those cases, mean substitution was

³ The response rate for the survey appears to have been mainly a function of the number of students in class on the day the survey was administered.

employed to eliminate missing values. As shown in Table 1, students in the sample were absent approximately 2.9 days on average, were taking about 12.9 hours of classes, on average, and reported a mean prior GPA of 2.95.

Table 1. Descriptive Statistics.

Variable	N	Mean	Std. Dev	Minimum	Maximum
Grade pct.	29	78.7	6.35	67.4	91.3
Days missed	29	2.93	3.16	0	10
Contacts	29	0.15	0.36	0	1
Hours	33	12.9	3.2	6	18
GPA	28	2.95	0.52	1.94	3.89
Get points	29	0.62	0.49	0	1

Looking at the basic question of whether attendance influenced course grade, Table 2 compares the final grade percentage of those missing 2 or fewer classes compared to those missing 3 or more. The final grade percentage for those missing 2 or fewer classes was significantly higher ($p < 0.005$ in a two-tailed t-test) at 79.2%, compared to 73.4% for those missing 3 or more classes. Thus, it appears that consistent attendance was associated with approximately a one-half letter grade higher course grade.⁴ Thus, the evidence in the current study supports prior findings that consistent attendance is associated with greater course success.

Table 2. Course Final Grade by Days Missed.

Classes Missed	Grade %
0-2	79.62*
3+	73.36

* $p < 0.005$ in a two-tailed t-test

A. Regression Analyses Predicting Course Success

To examine whether contacting students influenced course success, I conducted regression analyses to isolate the impact of contacts, net of other factors likely to influence course success. Table 3 shows the results of four regression equations predicting course grade percentage for students completing the survey (0-100%).⁵ Equation 1 shows that, controlling for prior grade point average (GPA), the number of hours currently being taken by the student, and instructor contacts, the number of course sessions missed was significantly negatively associated with the course grade ($p < 0.05$). Equation 2 substitutes whether the student attended frequently enough to earn extra credit or not. Missing 2 or fewer classes was associated with significantly higher final grades in the course. This further confirms prior research that higher levels of attendance are associated with greater levels of course success.

⁴ Some of this difference in the final grade was no doubt due to earning extra credit points for frequent attendance. Yet, this cannot explain all of the more than one-half letter grade difference (6.26%) between the groups because the maximum extra credit points that could be awarded only constituted 2% of the final course grade.

⁵ In all 4 equations presented in Table 3, an overall F-test was significant ($p < .01$).

Table 3. Regression Results of Course Grade Percent on Attendance, Instructor Contact and Prior GPA (N = 33).

VARIABLE	<u>Eq. (1)</u>	<u>Eq.(2)</u>	<u>Eq.(3)</u>	<u>Eq.(4)</u>
Constant	57.579*** (5.784)	54.411*** (5.644)	55.004*** (5.796)	53.881*** (5.511)
Prior GPA	7.334*** (1.700)	6.931*** (1.684)	7.745*** (1.663)	7.438*** (1.672)
Current hours enrolled	0.089 (0.257)	0.094 (0.251)	0.164 (0.253)	0.165 (0.249)
Absences	-0.574* (0.277)		-0.181 (0.352)	
Extra Credit for Attendance		4.206* (1.752)		2.226 (2.114)
Contacted by Instructor			-4.990 (2.907)	-4.288 (2.697)
Adjusted R ²	0.407	0.485	0.445	0.461

* p < 0.05, ** p < 0.01, *** p < 0.001, two tailed significance test

Turning to the central question of the current study, Table 3 does not suggest that systematically contacting students was associated with higher student final grades net of the other factors in equations 3 and 4. There were no significant differences between the final grades of contacted students versus those that were not contacted.⁶ In fact, the most important predictor of final grade percentage was prior GPA. This perhaps should not come as a surprise. Presumably, when it comes to educational outcomes, past performance is indicative of future performance. Yet, it is important to keep the small N of this study in mind when interpreting these results.⁷

B. Comparing Attendance and Course Retention and Success.

In terms of course retention and success, explicitly having a policy of systematically contacting absent students, does not appear to have had a substantial impact. Table 4 shows the D/F/ Withdrawal (D/F/W) rates for two sections of the course—the treatment section (Fall 2005) and the comparison section from the previous semester (Spring 2005).⁸ Overall the D/F rate was 5% lower (17% v. 22%) in the current section compared to the previous semester. Yet, this was not a statistically significant difference (perhaps due to the relatively small class sizes involved).

⁶ The coefficients for attendance drop to non-significance with the inclusion of the contact variable in equations 3 and 4. Variance Inflation Factors (VIF) were examined to determine whether the inclusion of attendance and contact variables in the same equation created multi-collinearity problems. VIFs were below 2.0 in all equations suggesting that multi-collinearity was not a major concern.

⁷ Alternative specifications without mean substitution produced substantively similar results to those presented in Table 3.

⁸ Ideally, it would have been beneficial to compare attendance rates between the two classes but attendance records for the prior semester were unavailable at the time of the study.

Table 4. DFW Rate Comparison for J202 Sections.

	N	% D	% F	% W	% DFW	% DF ^a
Spring 2005	48	10.40%	8.30%	14.60%	33.30%	22.0%
Fall 2005	56	7.10%	7.10%	16.10%	30.40%	17.0%*

^a DF rate excludes those who withdrew

And although the D/F/W rates was 2.9% lower in the treatment semester (30.4% v.33.3%), this difference was also not statistically significant. Ironically, there was a slight (though not statistically significant) increase (1.5%), in the withdrawal rate. This might actually indicate that student contact policy was working because the instructor counseled a few students who had never attended or only attended the course a few times to withdraw from the class or they would likely receive a failing grade. In these cases, it was determined that discretion might be the better part of valor and that students would be better served by withdrawal. Thus, the results of the current study do not provide strong evidence of any impact of the contacts on course success either in terms of contacted students' GPA or in terms of D/F/W rates compared to a semester without such contacts.

C. Student Perceptions of Contact.

The student survey offers somewhat more encouraging evidence on the value of instructor contacts. Appendix A lists the attendance survey questions and student response patterns. Based on student responses, it is clear that students were aware of the attendance policies and the emphasis the instructor placed on the importance of attendance. For example, all 33 survey respondents acknowledged that the instructor had discussed the attendance policy early in the course.

In terms of patterns of attendance, 22 of 33 respondents self-reported missing 2-5 days of class (out of approximately 30 course meetings). Students' stated reasons for missing class varied widely. Most respondents reported missing class due to illness, emergency (self or family), or work obligations.⁹ The majority of respondents (70%) agreed that their patterns of attendance influenced their grade in the course. In addition, 30% reported attending the class more than others on campus, although it is not clear whether the increased attendance was due to the course content (perhaps unlikely given that the course is a required research methods course), the increased contact by the instructor, or some other combination of factors.¹⁰

In terms of student views of instructor contacts regarding absences, nine reported being contacted by the instructor, which was somewhat lower than the actual number of students contacted (N=15), (likely because those contacted by the instructor missed classes frequently and so were less likely to be in class on the day the survey was administered). Five of the nine reported viewing the contact positively, while the remaining four reported being neutral regarding it. Similarly, five of the nine reported being more likely to attend class following the contact than before, whereas the remaining 4 were about as likely to attend as before. Additional

⁹ Students may have had a disincentive to accurately report reasons for absences that they believed would be seen as less justified because the surveys were confidential rather than anonymous. Still, the stated reasons for missing class match the statements made by many students outside of the survey context, in informal interactions with the instructor.

¹⁰ In retrospect, exploring students' reasons for relative attendance levels in comparison to other courses would have been a valuable follow-up question to ask.

evidence from student email responses to instructor contacts suggests that, at least some of those contacted viewed it as an expression of the instructor's concern for their well-being. Thus, the evidence suggests that the contacts by the instructor are viewed positively by the students (or at least not negatively), and that the contacts caused at least some of the students to increase their attendance.¹¹ Students also reported believing that course attendance and success are related. Overall, the results suggest that students do not resent being contacted, and in some cases the contacts increased the students' reported likelihood of coming to class. Thus, the survey results paint a somewhat more positive view of the value of contacting students than the quantitative analyses of final grade percentage and comparisons of D/F/W rates with a prior semester section of the same course.

IV. Discussion and Conclusions.

This classroom action research was undertaken to assess whether contacting consistently absent students (in the presence of mandatory attendance policies and extra credit for attendance) would increase course success. The current study confirmed the results of several prior studies that higher levels of attendance were associated with greater course success, especially for those with highly consistent attendance (2 or fewer absences), who scored more than one-half letter grade higher on average than those who attended less frequently. Regression results, however, did not suggest that contacting students had an independent impact on course final grade, net of other factors such as prior GPA. Nor was there much evidence of statistically significant reductions in D/F or D/F/W rates compared to a prior semester without systematic instructor contacts of absent students. In fact, the withdrawal rate actually was slightly higher (16.1% v. 14.6%) in the treatment class relative to the prior section. Yet, increases in the withdrawal rate could indicate that the contact policy was working because the instructor was able to persuade some consistently absent students that withdrawal was better than failure. From an institutional standpoint withdrawal may not be a desirable outcome but from the student's perspective it is likely to be a much more desirable outcome than a failing grade on the transcript.

Survey results were more supportive. Respondents generally did not seem to resent the contacts and a majority (5 of 9) reported being more likely to attend class following the contact (the remaining 4 were about as likely). Thus, students' appeared to perceive the contacts positively and a majority stated that the contacts influenced their attendance.

Several limitations of the current study must be considered. First, the small number of students and the corresponding small number of instructor contacts in the study made isolating the independent effects of contacts on final grade difficult. This is a serious limitation that precludes firm conclusions regarding the effects (or lack of effects) of the contacts and suggests that additional studies are necessary. It is also possible that the addition of a policy of contacting absent students to other attendance policies limited the overall impact on student outcomes compared to alternative specifications with no mandatory attendance policy or extra credit points for attendance. Future research could compare which strategy (mandatory attendance, systematic instructor contact, extra credit) is most effective at increasing attendance, course retention, and success. Given that only one other published study has specifically examined the effects of instructor contacts on course success, it seems critical to explore these issues further with much

¹¹ It should be noted, however, that these conclusions are based on a small number of responses. A larger number of responses might have produced more negative responses.

larger sections or in subject areas with multiple sections taught by a single instructor in the same semester to minimize other potential influences on course outcomes.

Another limitation is that students responded to the survey at the end of the course. This has several potential implications. First, students' perceptions of the contact may have been inaccurate due to the time between the contact and the time the survey was completed (several weeks in some cases). Second, the survey was only completed by those who remained in the course. The students who withdrew or failed for non-attendance might have had different reactions to the contacts had they remained to complete the survey. In methodological terms, this is an issue of sample selection. It could be that those who remained to take the survey viewed attendance and contacts differently than those who did not remain in the course. This is an issue that is not easily resolved given the constraints of the current research setting. One possibility would be for universities to routinely conduct exit surveys of withdrawing students or those who fail for non-attendance to determine students' reasons for withdrawal or non-attendance and their perceptions of the course and college environment.

The current research suggests that contacting absent students is no magic bullet. The reasons for student absences vary tremendously and often reflect the conflicting demands in students' lives. Some have children who become ill and cannot find child care. Others cannot control their work schedules. Telling students that attendance is important does not make their child any less sick or their work schedule any more flexible. Thus, the likely impact of attendance policies or increased contact from instructors on student attendance must be placed in this context. Students often have a number of competing demands on their time, and regardless of the course policies or content, this reality is unlikely to change. It also appears that good students think attendance is important and consistently do so. Prior GPA emerged as the strongest predictor of the final grade percentage. Perhaps this is to be expected. Students who do well in prior courses can be reasonably assumed to possess the skill and motivation to do well in the current course. Presumably part of the skill and motivation that leads to past and present student success is reflected in higher attendance in the course. Thus, it could be that students attend because they are conscientious, motivated students.

Still, contacting absent students serves worthwhile purposes. By contacting absent students, especially early in the course, the instructor may be able to head off any problems before they become large enough to preclude course success, or allow the student to withdraw before failure becomes inevitable. Students in the current study (at least those remaining in the course to be surveyed at the end) appeared to view these contacts as an expression of concern from the instructor. The additional work is minimal and, regardless of whether there are substantial effects on attendance or success, the instructor has attempted to maintain a relationship with students who are not consistently in the classroom. The policy of contacting absent students may also represent an acceptable middle-ground for instructors who are uncomfortable with mandatory attendance policies.

The larger point, however, may be that when dealing with attendance or other classroom issues—try something. This study highlighted for me that students often miss class for very legitimate reasons that they perceive to be beyond their control. Yet, the attention that instructors pay to attendance creates incentives that maximize the likelihood that students will attend, and contacting absent students enhances student beliefs that the instructor is concerned about their well-being and success. In a broader sense, more important than the success or failure of a particular classroom strategy, is that identification of classroom problems and initiating proactive strategies to improve them is critical to improving teaching.

V. Acknowledgements.

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Appendix 1. Attendance Survey Fall 2005 With Results.

Is this your first class with this instructor? Yes ___31___ No ___2___

Did you attend the first day of class? Yes ___32___ No ___1___

Did the instructor discuss attendance or an attendance policy early in the course? Yes ___33___ No ___0___

Were you aware that extra credit points were available for course attendance? Yes ___32___ No ___1___

Did the extra credit make it more likely that you would come to class?

___1___ much more likely ___8___ somewhat more likely

___5___ slightly more likely ___10___ no more or less likely

___8___ less likely

How many class days have you missed this semester?

___2___ 0-1 ___10___ 2-3 ___12___ 4-5 ___2___ 6-8 ___2___ 9+ ___2___ not sure

For the days that you missed class, could you describe the reason (check all that apply):

___8___ not feeling well

___2___ other schedule conflict

___7___ family illness

___4___ difficulty with transportation

___4___ family emergency

___12___ other

___6___ work schedule

Did the instructor contact you regarding your attendance? ___8___ Yes ___25___ No

If yes, how many times? 6 people once; 2 people twice

How did you view this contact from the instructor?

___1___ very positively ___4___ positively ___4___ neutral

___0___ negatively ___0___ very negatively

After the instructor contacted you how likely were you to attend class?

___3___ much more likely ___2___ more likely ___4___ about as likely as before

___0___ somewhat less likely ___0___ much less likely

Did your class attendance affect your grade in the course?

___7___ strongly agree ___14___ agree ___8___ neutral

___1___ disagree ___1___ strongly disagree

How did your attendance in this class compare to others you are taking / have taken at IUPUI?

___4___ much more often than others ___6___ somewhat more often than others

___22___ about as often as others ___1___ somewhat less often than others

___0___ much less often than others

Did the instructor create a classroom environment that was conducive to learning?

___21___ strongly agree ___9___ agree ___3___ neutral ___0___ disagree ___0___ strongly disagree

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